Aerospace series - Bearing, spherical, plain in corrosion resisting steel with self-lubricating liner - Elevated load at ambient temperature - Technical specification

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 2755:2021 sisaldab Euroopa standardi EN 2755:2021 ingliskeelset teksti.	This Estonian standard EVS-EN 2755:2021 consists of the English text of the European standard EN 2755:2021.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 17.11.2021.	Date of Availability of the European standard is 17.11.2021.
Standard on kättesaadav Eesti Standardimis- ja Akrediteerimiskeskusest.	The standard is available from the Estonian Centre for Standardisation and Accreditation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

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English Version

Aerospace series - Bearing, spherical, plain in corrosion resisting steel with self-lubricating liner - Elevated load at ambient temperature - Technical specification

Série aérospatiale - Rotule, en acier résistant à la corrosion à garniture autolubrifiante - Série à charge élevée à température ambiante - Spécification technique

Luft- und Raumfahrt - Gelenklager, aus korrosionsbeständigem Stahl mit selbstschmierender Beschichtung - Reihe hohe Belastungen bei Raumtemperatur - Technische Lieferbedingungen

This European Standard was approved by CEN on 12 July 2020.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (EN 2755:2021) has been prepared by the Aerospace and Defence Industries Association of Europe - Standardization (ASD-STAN).

After enquiries and votes carried out in accordance with the rules of this Association, this Standard has received the approval of the National Associations and the Official Services of the member countries of ASD-ASD, prior to its presentation to CEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by May 2022, and conflicting national standards shall be withdrawn at the latest by May 2022.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 2755:2009.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

1 Scope

This document specifies the required characteristics, inspection and test methods, qualification and acceptance conditions for a spherical plain bearing in corrosion resisting steel, with self-lubricating liner, for elevated loads at ambient temperature intended for use in fixed or moving parts of the aircraft structure and control mechanisms.

This document applies whenever referenced.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 2064, *Aerospace series — Bearings, spherical plain in corrosion resisting steel with self-lubricating liner — Technical specification*

EN 2584, *Aerospace series — Bearings, spherical plain in corrosion resisting steel with self-lubricating liner — Narrow series — Elevated loads at ambient temperature — Dimensions and loads*

EN 2585, *Aerospace series — Bearing, spherical plain in corrosion resisting steel with self-lubricating liner — Wide series — Elevated load at ambient temperature — Dimensions and loads*

EN 3048, *Aerospace series — Bearings, spherical plain in corrosion resisting steel with self-lubricating liner — Light series — Elevated load at ambient temperature — Dimensions and loads*

EN 4037, Aerospace series — Bearings, spherical plain in corrosion resisting steel with self-lubricating liner, reduced starting torque — Light series — Dimensions and loads[1]

EN 4038, Aerospace series — Bearings, spherical plain in corrosion resisting steel with self-lubricating liner reduced starting torque — Normal narrow series — Dimensions and loads[1]

EN 4039, Aerospace series — Bearings, spherical plain in corrosion resisting steel with self-lubricating liner reduced starting torque — Normal wide series — Dimensions and loads[1]

EN 4040, *Aerospace series — Bearings, spherical plain in corrosion resisting steel with self-lubricating liner with wide inner ring — Elevated loads at ambient temperature — Dimensions and loads*

EN 4613, *Aerospace series — Spherical plain bearings in corrosion resisting steel with self-lubricating liner, narrow series — Dimensions and loads — Inch series*

EN 4614, *Aerospace series — Spherical plain bearings in corrosion resisting steel with self-lubricating liner, wide series — Dimensions and loads — Inch series*

EN 6096, *Aerospace series — Bearing, spherical plain with self-lubricating liner, extra wide inner ring in corrosion resisting steel — Dimensions and loads — Inch series*

EN 9100, *Quality Management Systems — Requirements for Aviation, Space and Defence Organizations*

EN 10204, *Metallic products — Types of inspection documents*

[1] Published as ASD-STAN Prestandard at the date of publication of this standard by AeroSpace and Defence Industries Association of Europe – Standardization (ASD-STAN) (www.asd-stan.org).

ISO 11078, *Aircraft — De-icing/anti-icing fluids, ISO types II, III and IV*

TR 4475, *Aerospace series — Bearings and mechanical transmissions for airframe applications — Vocabulary*[2]

3 Terms and definitions

For the purposes of this document, the terms and definitions given in TR 4475 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at https://www.iso.org/obp
- IEC Electropedia: available at https://www.electropedia.org/

3.1
spherical plain bearings with self-lubricating liner
spherical plain bearings consisting of two concentric rings between which is interposed a self-lubricating liner which is bonded or moulded onto the spherical inner surface or the spherical outer surface

3.2
Surface discontinuities

3.2.1
score, scratch
open surface defect

3.2.2
lap
surface defect where particles of metal or sharp edges are folded over and then rolled or forged into the surface

3.2.3
seam
unwelded fold which appears as an open defect in the material

3.3
starting torque without load
torque required to start the rotation of the inner with the outer ring held stationary

[2] Published as ASD-STAN Technical Report at the date of publication of this standard by AeroSpace and Defence Industries Association of Europe – Standardization (ASD-STAN) (www.asd-stan.org).